



Sequence Listing.ST25
SEQUENCE LISTING

<110> Baehrecke, Eric H.

<120> GENES REGULATING PROGRAMMED CELL DEATH

<130> 4115-131

<140> 10/016,768

<141> 2001-10-29

<160> 12

<170> PatentIn version 3.2

<210> 1

<211> 53

<212> PRT

<213> Drosophila melanogaster

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His Arg Ala Gly Ser Tyr Tyr Gly Val Pro His Ser Thr Leu Glu Tyr
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Lys Val Lys Glu Arg
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<212> PRT

<213> Homo sapiens

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Cys Lys Ser Ile Gln Met Asn Gln Ala Glu Asn Ser Leu Gln Glu Glu
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Gln Glu Gly Pro Leu Asp Leu Thr Val Asn Arg Met Gln Glu Gln Asn
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Ile Lys Ser Glu Glu Ser Ser Ile Cys Asp Pro Ser Ser Glu Asn Ser
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Val Ala Gly Arg Leu His Arg Asn Arg Glu Asp Tyr Val Glu Arg Ser
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Ala Glu Phe Ala Asp Gly Leu Leu Ser Lys Ala Leu Lys Asp Ile Gln
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Ser Gly Ala Leu Asp Ile Asn Lys Ala Gly Ile Leu Tyr Gly Ile Pro
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165 170 175

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Lys Asp Ser Lys Glu Thr Cys Ala Val Leu Gln Lys Val Ala Leu Trp
180 185 190

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Leu Gln Tyr Glu Thr Ser Asn Pro Thr Val Gln Leu Lys Ile Pro Gln
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Leu Arg Val Ser Ser Val Ser Lys Ser Gln Pro Asp Gly Ser Gly Leu
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Leu Asp Val Met Tyr Gln Val Ser Lys Thr Ser Ser Val Leu Glu Gly
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370 375 380

Ser Lys Ala Gln Gly Ile Tyr Gly Val Pro His Ser Thr Leu Glu Tyr
385 390 395 400

Lys Val Lys Glu Arg Ser Gly Thr Leu Lys Thr Pro Pro Lys Lys Lys
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435

Sequence Listing.ST25
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Sequence Listing.ST25

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Sequence Listing.ST25

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Sequence Listing.ST25

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Sequence Listing.ST25

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Sequence Listing.ST25

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<400> 10

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Cys Met Gly Arg Arg Gln Trp Lys His Tyr Gln Asp Lys Leu Thr Cys
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```

Ser His Leu Asn Ile Glu Glu Gln Gln Pro Ile Ala Ile Ala Gly Ser
          35          40          45

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Glu Asp Glu Pro Ser Gln Tyr Asn His Ser Ser Lys Glu Ile Ser Gln
50          55          60

```

```

Ser Asn Pro Asn His Cys Lys Thr Glu Asn His Arg Leu Glu Gln Gln
65          70          75          80

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His Asn Gly Ser Gln Leu Leu Glu Glu Glu Asp Ser Glu Asn Asn Gln
          85          90          95

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Thr Ser His Asp Ser Ser Arg Thr Pro Thr Pro Gly Ala Thr Ser Thr
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Pro Ser Pro Pro Pro Glu Pro Ile Asp Trp Arg Pro Ser Ala Lys Cys
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```

Asn Phe Cys Val Asn Gly Arg Leu Leu Thr Val Asn Ala Gln Gly Lys
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Leu Val Ala Glu Ser Ala Ala Thr Ala Thr Ser Ser Ser Thr Ser Asn
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Ser His Ile His Gln His Asp Ser Asp Ser Asn Ser Ser Ala Ser Leu

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Sequence Listing.ST25

165

170

175

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 260 265 270
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 275 280 285
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 305 310 315 320
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 Phe Lys Met Lys His His Asp Gln Glu Gln Asp His Asp Gly Asp Glu
 370 375 380
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 385 390 395 400
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Sequence Listing.ST25

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Asp Arg Gly Ser Pro Lys Met Gly Arg His Pro Ala Cys Gly Asn Ala
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Ser Ala Asn Gln Gly Ala Pro Ala Ser Ile Pro Leu Asp Ala Asn Val
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Leu Leu His Thr Leu Met Leu Ala Ala Gly Ile Gly Ala Met Pro Lys
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Leu Asp Glu Thr Gln Thr Val Gly Asp Phe Ile Lys Gly Leu Leu Val
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Ala Asn Ser Gly Gly Ile Met Asn Glu Gly Leu Leu Asn Leu Leu Ser
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Ala Ser Gln Glu Asn Ser Asn Gly Asn Ala Ser Leu Leu Leu Gln Gln
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Gln Gln His Gln Gln His His Gln Gln His His Gln Gln Gln Gln Gln
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Gln Gln His Val Ala Ala Tyr Arg His Arg Leu Pro Lys Ser Glu Thr
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Pro Glu Thr Asn Ser Ser Leu Asp Pro Asn Asp Ala Ser Glu Asp Pro
565 570 575

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580 585 590

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595 600 605

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610 615 620

Ser His Arg Asn Gly Ser Asn Arg Ser Pro His Ser Ala Ser Pro Met
625 630 635 640

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645 650 655

Leu Thr Ser Ser Ser Ser Ile Gln Lys Met Met Ala Ser Asn Ile
660 665 670

Sequence Listing.ST25

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 Lys Arg Glu Pro Lys Pro Gln Pro Asp Leu Val Gly Leu Thr Gly Pro
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 Ala Asn Lys Leu Gln Leu Asp Lys Leu Lys Ala Gly Pro His Gly Gly
 835 840 845
 Ser Lys Leu Ser Asn Ala Leu Lys Asn Gln Asn Asn Gln Ala Ala Ala
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Thr Pro Asn Gly
 865 870 875 880
 Leu Lys Leu Pro Leu Phe Glu Ala Gly Pro Gln Ala Leu Ser Phe Gln
 885 890 895
 Pro Asn Met Phe Trp Pro Gln Thr Asn Ala Thr Asn Ala Tyr Gly Leu
 900 905 910
 Asp Phe Asn Arg Ile Thr Glu Ala Met Arg Asn Pro Gln Ala Ser Asn
 915 920 925

Sequence Listing.ST25

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930 935 940

Asp Gly Ile Ile Arg Lys Thr Leu Gln Ala Ser Glu Gly Asn Gly Ser
945 950 955 960

Ala Ala Gly Asn Gly Ser Asn Gly Ser Asn Gly Asn Gly His Gly His
965 970 975

Gly His Gly His Gly His Ala Leu Leu Asp Gln Leu Leu Val Lys Lys
980 985 990

Thr Pro Leu Pro Phe Thr Asn His Arg Asn Asn Asp Tyr Ala Ala Thr
995 1000 1005

Cys Ser Ser Ala Ser Gly Glu Ser Val Lys Arg Ser Gly Ser Pro
1010 1015 1020

Met Gly Asn Tyr Ala Asp Ile Lys Arg Glu Arg Leu Ser Ala Asp
1025 1030 1035

Ser Gly Gly Ser Ser Asp Glu Glu His Ser Ala Ser His Ile Asn
1040 1045 1050

Asn Asn Asn Ser Asp Leu Ala His Asn Lys Asn Lys Ser Gly Gly
1055 1060 1065

Gly Gly Gly Gly Gly Asn Gly Gln Thr Asn Gly Asn Gly Arg
1070 1075 1080

Ser Ser Arg Met Thr Ser Arg Asp Asp Ser Glu Thr Asp Ala Ser
1085 1090 1095

Ser Phe Lys Ser Gly Glu Asn Gly Gly Gln Gln Asn His Lys Met
1100 1105 1110

Met Asp Leu Asn Gly Gly Ser Ser Ser Ser His Ile Lys Cys
1115 1120 1125

Glu Ser Glu Ala Ala Thr Gly His His Ser Pro Gly His His Thr
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Thr Ser Ile Leu His Glu Lys Leu Ala Gln Ile Lys Ala Glu Gln
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Val Asp Gln Ala Asp Gln Leu

Sequence Listing.ST25

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 35 40 45

Glu Asp Glu Pro Ser Gln Tyr Asn His Ser Ser Lys Glu Ile Ser Gln
 50 55 60

Ser Asn Pro Asn His Cys Lys Thr Glu Asn His Arg Leu Glu Gln Gln
 65 70 75 80

His Asn Gly Ser Gln Leu Leu Glu Glu Glu Asp Ser Glu Asn Asn Gln
 85 90 95

Thr Ser His Asp Ser Ser Arg Thr Pro Thr Pro Gly Ala Thr Ser Thr
 100 105 110

Pro Ser Pro Pro Pro Glu Pro Ile Asp Trp Arg Pro Ser Ala Lys Cys
 115 120 125

Asn Phe Cys Val Asn Gly Arg Leu Leu Thr Val Asn Ala Gln Gly Lys
 130 135 140

Leu Val Ala Glu Ser Ala Ala Thr Ala Thr Ser Ser Ser Thr Ser Asn
 145 150 155 160

Ser His Ile His Gln His Asp Ser Asp Ser Asn Ser Ser Ala Ser Leu
 165 170 175

Pro His His Ile Ser Ser Ser Ser Ser Ser Asn Asn Asn Ser Ser Gly
 180 185 190

Asn Arg Ala Arg His Ile Ala Ala Ala Ser Ala Arg Ala Thr Pro Ala
 195 200 205

Ala Ala Thr Pro Ala Asn Ser Leu Glu Leu Tyr Lys Leu Leu Thr Gln
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Sequence Listing.ST25
220

210

215

Arg Ala Ala Lys Met Thr Ser Met Asp Ser Met Ala Ala Gln Leu Ala
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Gln Phe Ser Leu Leu Ala Asp Phe Asn Leu Ile Asn Ser Leu Ala Ser
245 250 255

Gln Gln Gln Gln Gln Gln Gln Gln Ile Ala Ser Ala Val Thr Pro
260 265 270

Thr Thr Ser Glu Val Ser Ala Ala Ala Ile Ser Pro Ala Leu Lys Asp
275 280 285

Thr Pro Ser Pro Ser Val Asp Ala Pro Leu Asp Leu Ser Ser Lys Pro
290 295 300

Ser Pro Asn Ser Ser Ile Ser Gly Asp Val Lys Ser Val Arg Ala Cys
305 310 315 320

Ala Thr Pro Thr Pro Ser Gly Arg Arg Ala Tyr Ser Glu Glu Asp Leu
325 330 335

Ser Arg Ala Leu Gln Asp Val Val Ala Asn Lys Leu Asp Ala Arg Lys
340 345 350

Ser Ala Ser Gln His His Glu Gln Arg Ser Ile Leu Asp Asn Arg Leu
355 360 365

Phe Lys Met Lys His His Asp Gln Glu Gln Asp His Asp Gly Asp Glu
370 375 380

Leu Glu Asp Ser Asn Asp Asp Ala Glu Ala Glu Val Asp Ser Asn Ala
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Ser Thr Pro Val Tyr Pro Ala Glu Phe Ala Arg Ala Gln Leu Arg Lys
405 410 415

Leu Ser His Leu Ser Glu His Asn Gly Ser Asp Leu Gly Glu Asp Val
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Asp Arg Gly Ser Pro Lys Met Gly Arg His Pro Ala Cys Gly Asn Ala
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Ser Ala Asn Gln Gly Ala Pro Ala Ser Ile Pro Leu Asp Ala Asn Val
450 455 460

Sequence Listing.ST25

Leu Leu His Thr Leu Met Leu Ala Ala Gly Ile Gly Ala Met Pro Lys
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Leu Asp Glu Thr Gln Thr Val Gly Asp Phe Ile Lys Gly Leu Leu Val
485 490 495

Ala Asn Ser Gly Gly Ile Met Asn Glu Gly Leu Leu Asn Leu Leu Ser
500 505 510

Ala Ser Gln Glu Asn Ser Asn Gly Asn Ala Ser Leu Leu Leu Gln Gln
515 520 525

Gln Gln His Gln Gln His His Gln Gln His His Gln Gln Gln Gln Gln
530 535 540

Gln Gln His Val Ala Ala Tyr Arg His Arg Leu Pro Lys Ser Glu Thr
545 550 555 560

Pro Glu Thr Asn Ser Ser Leu Asp Pro Asn Asp Ala Ser Glu Asp Pro
565 570 575

Ile Leu Lys Ile Pro Ser Phe Lys Val Ser Gly Pro Ala Ser Ser Ser
580 585 590

Ser Leu Ser Pro Gly Gly Leu Val Gly Gly His His His Pro Leu Asn
595 600 605

Asn Asn Asn Ser Leu Ser Ile Ser Asn Asn Ser Asn His Ser Ser Asn
610 615 620

Ser His Arg Asn Gly Ser Asn Arg Ser Pro His Ser Ala Ser Pro Met
625 630 635 640

Leu Ala Ala Ala Val Ala Gln Gly Gly Tyr Ser Ala Gly Asn Ser Leu
645 650 655

Leu Thr Ser Ser Ser Ser Ile Gln Lys Met Met Ala Ser Asn Ile
660 665 670

Gln Arg Gln Ile Asn Glu Gln Ser Gly Gln Glu Ser Leu Arg Asn Gly
675 680 685

Asn Val Ser Asp Cys Ser Ser Asn Asn Gly Gly Ser Ser Ser Leu Gly
690 695 700

Tyr Lys Lys Pro Ser Ile Ser Val Ala Lys Ile Ile Gly Gly Thr Asp
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Sequence Listing.ST25

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 740 745 750
 Gln Glu Ala Leu Gly Lys Gly Thr Arg Pro Lys Arg Gly Lys Tyr Arg
 755 760 765
 Asn Tyr Asp Arg Asp Ser Leu Trp Arg Arg Ser Arg Arg Cys Arg Glu
 770 775 780
 Leu Lys Cys Arg Phe Ile Glu Arg Val Ala Thr Met Arg Thr Ala Phe
 785 790 795 800
 His Thr Gly Val Gln Gly Gln Gly Thr Ser Pro Asp Ala Thr Ala Gln
 805 810 815
 Ala Arg Ala Gln Ala Ala Ala Arg Ser Arg Arg Pro Asp Arg Thr Ser
 820 825 830
 Gln Gln Ala Ala Ala Gly Gln Thr Glu Gly Gly Thr Thr Trp Trp Leu
 835 840 845
 Gln Ala Glu Gln Cys Pro Gln Glu Pro Lys Gln Ser Gly Gly Cys Gly
 850 855 860
 Gly Gly Gly Gly Ser Ser Ser Ser Gly Arg Cys His Ala Gln Arg Pro
 865 870 875 880
 Glu Thr Ala Pro Phe Arg Gly Gly Ser Thr Gly Val Ile Leu Ser Ala
 885 890 895
 Glu His Val Leu Ala Pro Asp Glu Arg His Glu Cys Leu Arg Pro Gly
 900 905 910
 Leu Gln Ser His His Gly Gly Asp Ala Glu Phe Pro Gly Leu Gln Ser
 915 920 925
 Pro Arg Leu Met Lys Ser Ala Gln Asp Met Val Gly Glu Arg Leu Arg
 930 935 940
 Trp His His Gln Glu Asp Ala Ala Gly Glu Gln Gly Asn Gly Ser Ala
 945 950 955 960
 Ala Gly Asn Gly Ser Asn Gly Ser Asn Gly Asn Gly His Gly His Gly
 965 970 975

Sequence Listing.ST25

His Gly His Gly His Ala Leu Leu Asp Gln Leu Leu Val Lys Lys Thr
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Pro Leu Pro Phe Thr Asn His Arg Asn Asn Asp Tyr Val Val Thr Cys
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1010 1015 1020

Gly Asn Tyr Ala Asp Ile Lys Arg Glu Ala Leu Ser Ala Asp Ser
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Gly Gly Ser Ser Asp Glu Glu His Ser Ala Ser His Ile Asn Asn
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Asn Asn Ser Asp Leu Ala His Asn Lys Asn Lys Ser Gly Gly Gly
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Gly Gly Gly Gly Asn Gly Gln Thr Asn Gly Asn Gly Arg Ser Ser
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Lys Ser Gly Glu Asn Gly Gly Gln Gln Asn His Lys Met Met Asp
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Arg Arg Phe Ser Tyr Trp Ser Ser Arg Trp Thr Arg Ile Gln Arg
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Ser Pro Trp His Arg Trp Ser Pro Thr Thr Thr Val Ser Trp Arg
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Arg Glu Gly Glu His Gln Ile Lys Pro Arg Phe Leu Val Val Pro
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Tyr Lys Ser Leu Asn Arg Ile Ile Tyr Ile Tyr Ile Tyr Ile Tyr
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Sequence Listing.ST25
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1205

1210

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Sequence Listing.ST25

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Sequence Listing.ST25

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Sequence Listing.ST25

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Sequence Listing.ST25

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Sequence Listing.ST25

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